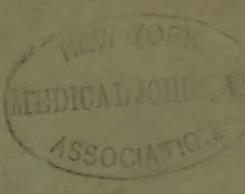


Percy (S.R.)



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ON THE FOOD OF CITIES,

BY SAMUEL R. PERCY, M. D.,

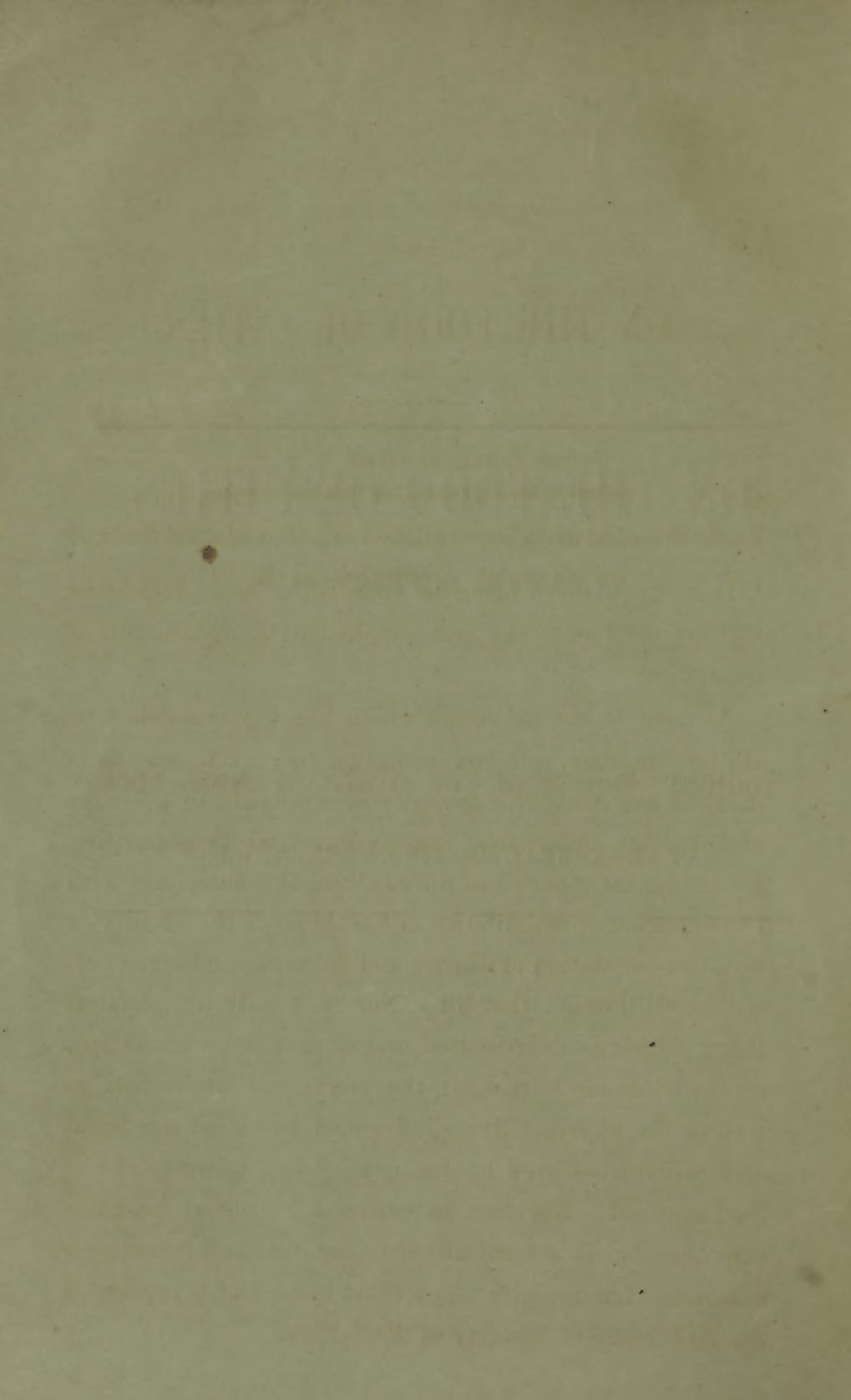
PROFESSOR OF MATERIA MEDICA, NEW YORK MEDICAL COLLEGE,

READ BEFORE THE

Medical Society of the State of New York,

AT ITS ANNUAL MEETING, FEBRUARY 1864.

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ON THE FOOD OF CITIES.

BY SAMUEL R. PERCY, M. D.,

Professor of Materia Medica, New York Medical College.

To the President and Fellows of the N. Y. State Medical Society:

It is my wish to bring to your notice some important matters relative to the food supplied to the inhabitants of our cities.

As milk is the substance which has first nourished us all, let me first call your attention to it. No one for a moment can doubt the necessity of supplying to a tender and delicate infant food exactly suited to its necessities, for at that early period of life anything that interferes with the digestion or assimilation either destroys the vitality or lays the foundation of disease and deformity, which is persistent all through that life. Nor is it only the physical being which is deteriorated and depraved by insufficient or unwholesome nutriment, the moral, the intellectual, as well as the physical life is influenced to a most wonderful and powerful degree by the quality and quantity of the food supplied. Nor does an evil or a beneficial influence stop here, but it is transmitted to the next and future generations. Let me give you a short history of a portion of the milk trade of the city of New York.

In 1841, Mr. Robert M. Hartly, the able and philanthropic secretary of the society for improving the condition of the poor, diligently studied the source of the supply of milk to the poor of our city. From his observations and from facts learned by him, he wrote an admirable little "Essay on Milk," in which, from close inspection, he asserted that the public health was much injured, and many children carried to an untimely grave by being fed upon milk drawn from cows which were kept upon distillery grains, and confined in unclean, unventilated and unhealthy stables. He stated that an infectious disease existed amongst these cows, which carried off large numbers of them, and left all attacked in an enfeebled condition, and that this disease was contagious and imported from Europe. This "Essay" attracted much attention, and called forth many shorter newspaper articles, (which can all be found on file), all corroborative of the same injurious effects from this milk. In 1847 a large Committee was appointed by the N. Y. Academy of Medicine, to investigate and report upon these "swill milk stables." A report was presented by Dr. A. K. Gardner, chairman,* this committee arriving at the same conclusions that Mr. Hartly had previously stated, both as to the diseased condition of the cows from the injurious and innutritious quality of the distillery *swill* fed to them, and from the crowded and filthy condition of the stables, and also as to the injurious effects of the milk from these cows upon the children to whom it was given.

About this time the proprietor of the Irving House was sued by a *manufacturer* of this distillery milk, usually de-

nominated "*swill milk*," to recover an amount of money for milk supplied to the hotel. The proprietor of the hotel proved that the *manufacturer* agreed to supply him with good milk, and the jury gave a verdict in favor of the proprietor on the ground that "*swill milk*" was not healthy, or such as the milk dealer agreed to supply.

In 1858, Frank Leslie, in his "Illustrated Newspaper," fully brought the subject of this distillery "*milk manufacture*" before the attention of the public, depicting, by means of graphic wood cuts, the diseased and unhealthy condition of the cows, the crowded and unventilated state of the stables, the dirty quality of the milk, the filthy practices used in drawing it, and the impurities, pollutions and abominations attending the whole business of the *manufacture* of *swill milk*. Artistic pictures were given of these bloated and diseased "*stump tailed*" animals, and their cleanly, attractive, attendant "*milk maids*." This graphic, delineative ante-mortem biography of these poor animals, shocked the public, awakened the Common Council, and vivified the Board of Health; testimony was taken upon the subject, and two reports rendered from a select committee of the Board of Health. In carefully reviewing the whole subject, the Board of Health found abundance of circumstantial evidence of the injurious quality of this *swill milk*, but there were but few direct facts to be brought forward in proof of it.* At this juncture, the Board of Health made an appeal to the Academy of Medicine to furnish them with "*facts and evidence*." Their resolution was passed

* Majority and minority reports of the select committee of the Board of Health appointed to investigate the character and condition of the sources from which cow's milk is derived, 1858.

June 7, 1858, and on the sixteenth of the same month the Academy appointed a committee to investigate the subject. The subscriber was one of the members and acted as secretary to this committee. After nine months of most earnest and laborious investigation, the committee made a report to the Academy* which was transmitted immediately to Mayor Tieman, as President of the Board of Health. At the following meeting of the New York State Medical Society, the members deeming the matter of great importance, ordered the whole report to be reprinted in their Transactions.† Owing to various causes, the subscriber was compelled to do most of the labor of this committee. One reason which made this necessity was the absolute impossibility of collecting any "facts and evidence" when the whole committee visited any of these "swill milk" establishments—for immediately upon their arrival everything was placed in the best possible order and every means taken to give a false coloring to the business. Systematic deception was resorted to to puzzle and perplex the committee. The subscriber finding such to be the case, resolved to visit the various establishments alone, and for his temerity his life was several times threatened. Offal was thrown at him by unseen individuals, and at two of the stables he was told by the polite "milk maids" that if he dared to repeat his visits they would teach him to swim in the vats that contained the excrements of the cattle. Finding the utter impossibility of learning anything when I went *in propria persona*, I was compelled to visit these places in disguise, and for months visited them at all times,

* Transactions of N. Y. Academy of Medicine, Vol. 2, part 4.

† Transactions of the Medical Society of the State of New York for 1860.

day and night, in various personifications ; at one time as a farmer eager to sell cows ; again as a butcher wishing to buy *savory* beef; sometimes as a grocery man wanting to make arrangements for a steady supply of *wholesome and pure milk*; and frequently as an idler looking for Pat Mc Laughlin. The Board of Health asked of the Academy of Medicine "facts and evidence." I collected some of them in this way—but in my report to the Academy I could give nothing but a scientific record of the facts collected, and the report throughout contains nothing but the scientific consideration of the subject. A scientific body had nothing to do with the means employed to arrive at conclusions, in my present appeal to a LEGISLATIVE BODY it is my proper business to present to them the labors endured, the difficulties overcome, the necessary deception practiced to learn anything of a business which exercises a vast influence on the public health and the public morals. During this period of nine months, I devoted myself almost exclusively to this business. I spared myself but four hours nightly sleep ; I spent more money than I could well afford without stinting my family ; and every hour not strictly occupied with professional attendance was given to the consideration of this subject. Mayor Tieman put at my entire disposal one of his personal police.

Need I say that I had no hopes of any remuneration for this labor. So far as my information goes, this is the only application ever made by the Board of Health to a strictly scientific body, and it would ever remain an opprobrium if the appeal had not been appropriately answered. Besides, as my feelings became enlisted, and as horrible

facts presented themselves to me, my enthusiasm determined, if possible, to probe this foul ulcer to the very bottom. It is now nearly six years since I commenced this investigation, and three times have my labors brought others before the State Legislature, asking for redress, legislative redress for this public nuisance, and again to-day I appeal to you in person, to ask your assistance in this matter, promising, as I proceed with my story, to give you "facts and evidence" so strong, that he who doubts the pernicious influence of this traffic, cannot be open to conviction.

I have no doubt that most of you now present have seen Frank Leslie's graphic wood cuts of the poor cows confined in these distillery stables, and fed exclusively upon the sour distillery waste; by many they were supposed to be caricatures, but I can assure you that there is not a single abomination which he has presented, that is equal to that which really exists. After the excitement caused by these exposures had settled down, and the business had returned to its original routine, I visited, *incognito*, all these distillery stables. In one of them, about 1,200 cows were confined in stalls which averaged about four feet four inches in width; they stood upon a board platform raised about four inches above the alley-way in double rows, tail to tail; in front of each row of cows there stood a trough to hold the swill which flowed into it in an almost boiling state from the distillery, and this supply was renewed twice or thrice daily, becoming, as it grew cold, excessively sour. The cows lapped up this semi-fluid mass, and consumed on an average, about a barrel each per day.

Some few of the owners gave, in addition a little hay, and to some of the cows that they were preparing for the butcher a little meal or bran ; other owners gave nothing for days together but the "swill," the refuse of grain after fermentation and distillation, that constantly stood in front of the cows. These stables had been occupied as such for many years, and an epidemic contagious disease constantly existed amongst the animals, so that it seemed necessary to inoculate every fresh animal introduced, in hopes to save it from the disease.

When cows first enter these stables, they will not touch this sour swill, until hunger and thirst at last compel them to drink it. For some time they fall away fearfully in flesh, and the quantity of milk they give diminishes very greatly. When the cow begins to feed on swill, inoculation is generally resorted to in hopes to save the animal from the prevailing disease. This inoculation is performed by cutting a slit in the skin of the tail, and binding therein a piece of the lung of an animal that has died of the disease. In consequence of the introduction of this poisonous virus, the tail swells, inflammation takes place, and not unfrequently the inflammation is so great that the tail swells to four or five times its natural size, and has at last to be amputated to save the life of the animal. Hence the name "stump tail." Not unfrequently the cow dies from this cause. I have known three out of seven inoculated, die from this cause, in one night. I have several times seen pieces of this diseased lung that is used for the purpose of inoculation ; such as I have seen has always been hepatised, and smelt offensively ; one piece, I

was told, was more than a month old ; it was wrapped in a piece of rag, and the whole covered with a piece of oiled silk. It is, in my opinion, impossible to produce with this lung matter, any specific disease, other than a mere poisonous dissection wound, and the symptoms of the poor animals, while under this species of torture, resembles the sufferings of an individual with a dissection wound ; it is not, I think, any preventive against the contagious disease, excepting so far as it offers immunity from one disease because the system is already saturated and occupied with another. During the continuance of this dissection wound, producing irritation and inflammation over the whole system, the small amount of milk given by the poor animal, is mixed with that from the other cows, and sold. Now there can be no question in the mind of any physician, as to the positively deleterious quality of milk from an animal in this condition ; whatever questions may arise as to the quality of the milk from cows in a passive, not in an active state of disease, there can be no question as to the injurious nature of milk from these inoculated cows ; *a priori* reasoning alone should answer sufficiently this question. I have never seen such milk thrown away ; it is always mixed with the rest and sold.

I have seen the inflammation from this dissection wound extend up the tail, swelling it to an enormous size, and making the tail so stiff and rigid, and the pain so great, that the poor animal would bellow if the tail was touched or moved. I have also seen it in several instances extend along the spine, making the least touch intolerably painful to the animal, and preventing all movements except those

that were compulsory. I have seen the root of the tail ulcerated in consequence, and large and deep ulcers over the spine and thighs of the animals. I saw one poor brute inoculated with this lung matter a few days after it came to the stable; after a few days the "milk maid" said that it had taken well, and opened the bandage and removed the virus; on the fifth day the tail was fearfully swollen and about two-thirds of it was amputated; the next day the poor brute was down and unable to rise; it was kicked and beaten, and its tail pulled and twisted to make it get up at milking time, but it was at last lifted up and leaned against the side of the stall while the "milk maid" with his head firmly braced against it, prevented it from falling. After being milked it gradually slid down, for its spine was so tender it was unable to move. Ulcers broke out around the tail, on each side of the spine, on the udder, thigh and buttocks. It was lifted up to be milked, and the milk mixed with the purulent matter running from the ulcers, was mixed with the rest for sale. At last, one hot, sultry morning, it was dragged out of the stable to die, where it soon became covered with millions of flies, and living maggots were crawling in the sores; the fresh air revived the poor animal somewhat, and as milking time again came round, it was lifted out of the mud to be milked, and this milk, mud and ulcerated matter was mixed with the rest for sale. It died during the night. I have seen several animals in a dying condition, carted off to be butchered; I have many, many time seen animals too weak to stand, lifted and leaned against the side of the stall, and kept in that position by the head of the "milk maid;" and I have seen

human lice upon these cattle in large numbers, propagated and transplanted upon these poor brutes from the heads of their attractive attendants.

A country dairy and cleanliness seem always associated together in our mind, but the reverse is markedly the case in these "city dairies." The air is tainted for a mile around them, offending the nostrils long before their proximity is surmised. Upon entering one of these "dairies" there is a sour, animal offensive odor; the aroma communicated from the breath of a healthy cow is entirely absent, and is replaced by much the same odor that is emitted by the breath of an habitual drunkard; the cows are dirty and neglected, and have a drunken and besotted look; many of them have sores on the legs from lying on the hard boards without litter; the fœces and urine are passed very frequently, the latter in enormous quantities, and frequently passed while laying down; the animals are constantly lapping the swill, which keeps the paunch bloated and distended; the feet become painful and tender from long standing, and occasionally sores form between the hoofs. The swill has the property of stimulating the secretion of milk very largely, so that to support its own frame and supply this drain the cow must eat, or rather lap, a very large amount of this swill, and some cows have been known to take 60 gallons of this substance daily—30 gallons is the average quantity allowed. The temperature within the stables is always high, in the winter ranging about 70° Farenheit, and in the summer from 100° to 120° Farenheit. The respiration of the cows in summer is very frequent, at least four times as frequent as when at

pasture. I have counted the respiration in six cows adjoining each other and found it over 90 times in the minute, whereas it ought to be but about 20 in a minute. The pulse is equally accelerated, varying from 150 to 170 beats in a minute, whereas it should not be over 80 in the minute.

The composition of this food is such that the animal must either eat a very large quantity or die of starvation. A small quantity could not support life, for by analysis it is found that 18 lbs. of cornmeal is equal in nutriment in the starch and sugar contained in it to 161 gallons of swill, in the oily matters to 30 gallons of swill, and in the nitrogenous products to over 40 gallons of swill. Moreover it is found that this daily quantity of 30 gallons contains about seven pints of vinegar produced by the acetous fermentation going on in the swill, and this quantity increases as it becomes older; it also contains acetate of ammonia and other products of putrefactive decomposition. I have frequently heard the observation made, "oh, this swill cannot be very injurious, as it is nothing but the refuse of grain after distillation." But it must be remembered that before distillation takes place fermentation is induced in the grain and its whole character is altered, and the starch and sugar are ultimately converted into alcohol, leaving very little of these nutritive products behind. Nor does fermentation stop here, but it is continued after it leaves the still, and even in the state in which it first reaches the animals it is sour owing to the formation of vinegar by prolonged fermentation, and as it stands before the animals it is constantly growing sourer and assuming another fermentative process, that of putrefactive

fermentation, which again creates another and different change in the original character of the grain. We have not then in this swill what is usually present in ground corn and other grains, but the grains have undergone vinous, acetic and putrefactive fermentation, making them insufficient to support the life of an animal in a healthy state. Each of these different kinds of fermentation deprives the grains of their nutrient qualities, and the two last make unhealthy additions. This substance does to a very great degree stimulate the secretion of milk, but at the same time it changes the quality of the fluid, altering it from its normal character, and imparting to it properties that healthy milk does not possess ; the analysis made by Professors Doremus, Chelton and Reid, together, from some 40 separate analyses made by myself, prove these observations to be correct. The treatment that these poor animals receive in some of the stables is truly brutal ; I have seen them most cruelly kicked, struck with the fist, and beaten with clubs ; I have seen their sore and inflamed tails pulled, tugged at, and most cruelly twisted to make the poor animals get up to be milked. I could give a portrait of one of these spruce, attractive, beaming "milk maids," with his captivating, fascinating, encouraging way of managing the poor animals under his draining superintendence. I first saw "Phil." (Phillis I called him,) on a warm day in August, in full dress, to begin his process of draining the milk sluices. He was about 6 feet high, entirely naked, except a too small pair of tow cloth drawers which reached in tattered fringes nearly to the knees ; they were too small to meet around

his enormous abdomen, so that a string about 6 inches long reached from the button-hole to the button. His hair was of the color of carrot roots, but blossomed and crimped and entwined like carrot tops; animalcules of huge dimensions roamed freely and safe from all disturbance within his umbrageous tangle; he had the broad muscular neck of a bull, with a forehead as low and retreating as a monkey's, and a nose as elegant and aspiring as a King Charles' spaniel; mouth, he had no mouth, but a huge protuberent gash in about the middle of his face; his arms were long and exceedingly muscular, and terminated in fists of about the size and color of a Boston marrow squash; his chest was massive and broad, and covered with carrot tops of a coarse variety; the stomach and abdomen were large and protruding, the legs spindling and diminutive, and the feet enormous. His language was the choicest modern Hellenic; he is always associated in my mind with Du Challou's bewitching gorilla. As he stood before me, pail in hand, about to enter the stables I had full opportunity to inspect him; I followed him, and noted his method of managing the animals; the first cow he went to was lying down; with sundry kicks with his heel he tried to make it get up, but without success; he then seized it by the tail and lifted, and with his shoulder under the buttocks of the animal he fairly lifted it upon its hind legs, and by yells and kicks at last made it to stand up on all fours; taking a one legged stool, he sat with his head firmly thrust into the side of the animal so as to keep it upright; twice the cow attempted to move forward, when his enormous fist smote her with the power of a Hercules in the ribs, and made her

groan most audibly; she stood in evident fear, her tail hugged closely to her; as the milking was nearly completed, her water gushed forth, and a stream of it coursing down the contiguous tail, trickled into the milk; the "Phillis"- (tine,) plunged another blow into the animal's ribs, but the milk was milk, notwithstanding a bountiful admixture with urine, and it was put into the general reservoir. This cow was near the door, but presently he retreated into the deep recesses of the stable to continue milking; when he again returned to the fresh air he was literally bathed in sweat, which ran down his face and broad chest, and trickled down his brawny arms drop by drop, into the milk. I went into the inner part of the stable with him, but could remain but a short time; I left my thermometer hanging near him; it indicated 121° F. The thermometer indicated about 90° out of doors in the shade, but the steam from the hot swill, the breath of the numerous animals, the immense amount of heated excrementaceous matter discharged, together with the hot sun beating upon the roof of the cattle shed, made the heat within some 30° higher, and almost unendurable. The animals were panting for breath, the respiration of some of them being 90 in the minute, and the pulse from 150 to 170 beats in the minute. *Would it seem necessary to trace the milk to its place of consumption to assert that such milk, drawn from animals in this feverish condition and with the admixtures described, must be positively injurious?* It would seem that reason and common sense could definitely decide. But the Board of Health, of the city of New York asked of the Academy of Medicine, "facts and evidence." I therefore, at great ex-

pense and trouble, followed up those "swill milk manufacturers" to the houses of their customers. Hundreds of cases had to be visited before I could find persons living solely upon this milk, but by patient and diligent labor, I found many that were fed solely on it after being weaned, and several hand-fed children. The full report of some of these cases are to be found in Assembly document No. 111, pages 52 to 59. Therein are "facts and evidence" conclusively proving that this swill milk is a positive and direct slow poison to those children fed upon it. And that but few children can survive, if fed solely upon it. There is also abundant proof that other children cannot even partake of it once without being made sick by it. I would that every father here present could see some of these poor miserable little sufferers, tormented with insatiable thirst, inordinate appetite, and constant diarrhoea—could see the pinched and painful expression of the face, the sleepless, fretful and irritable temper, the soft and flabby skin and wasting muscles. Early death is generally their relief; but if they live, it takes years to relieve the diseases engendered while the scrofulous taint is never entirely removed from them. I can to-day, if necessary, bring forward one of the little sufferers here recorded, rescued from death to suffer almost perpetual sickness, and doomed to be a useless member of society, the only weakly one in a large family. Here then are numerous "facts and evidences" that the "swill milk" is positively injurious as food. Does this milk differ from healthy cow's milk? By close and careful chemical analysis made by Doremus, Chilton, Reid and myself, and also by micro-

scopic observations, it is proved to be chemically a different fluid from healthy cow's milk. The wail of these poor sick and poisoned infants appeals to you for legislative protection—the only way protection can reach them.

We have then "facts and evidence," that cows kept in these stables and fed on this distillery "swill," become unhealthy, independent of the contagious disease that exists amongst them ; that they give unhealthy milk, differing in its quality and character from milk from healthy cows as proved by numerous analyses and microscopic examinations ; that this unhealthy and abnormal milk produces sickness, prolonged diseases, and death in those partaking of it ; that the practice of the whole *manufacture* of this milk induces cruelty, obscenity, and immorality amongst the attendants, and probable sickness and positive nuisance to the whole surrounding neighborhood. What pecuniary emolument to the few large distilleries engaged in this business can recompense the public and the State for all the losses it engenders ? The only excuse is, that distilleries cannot be carried on in the cities and compete with those in the country unless compensation is rendered for the refuse swill. But this method of utilising it, need not be pursued, for the refuse might be more profitably used in making impure acetic acid for the manufacture of whitelead, and the evaporated residuum mixed with other substances for manure. Nor is it the milk alone that produces injurious effects : I have as yet said nothing of the deleterious influences of the meat from these animals.

The Board of Health asked of the Academy of Medicine "facts and evidence" regarding the milk furnished to our

citizens ; with great labor and considerable expense numerous facts were furnished them, but the Board of Health have never had a meeting upon the subject.

Finding that no redress for this grievance was to be hoped for from our city authorities, I appealed to the State Legislature, and the earnest, humane, and honorable, late senator from Otsego county, Mr. Francis M. Rotch, introduced a bill into the Senate on Feb. 7, 1861, "to put a stop to the traffic in swill milk." This act was passed by the Senate, and my high-minded and disinterested friend wrote to me hopefully of its final passage ; he said, "I do not consider the bill we have passed as by any means satisfactory, but it was the best I could do, and I look upon it as an entering wedge rather than a complete remedy for the evil." But this bill was lost in the Assembly. While this bill was pending in the Assembly, Mr. Bennet, in the New York Herald, writes, "It is now about ten years since we called attention to the fact that thousands of children came to their deaths every year in this city, through the effects of impure milk. We gave facts, figures, statistics enough to satisfy the most obstinate skeptic in the world."

On 23d April, 1862, through the instrumentality of the Hon. E. Cornell, an act was passed by the State Legislature "to prevent the adulteration of milk, and to prevent the traffic in impure and unwholesome milk."

CHAP. 467.

AN ACT to prevent the adulteration of milk, and prevent the traffic in impure and unwholesome milk. Passed April 23, 1862: three-fifths being present.

The People of the State of New York, represented in Senate and Assembly, do enact as follows:

SECTION 1. Any person or persons who shall sell or exchange, or expose for sale or exchange, any impure, adulterated or unwholesome milk, shall be deemed guilty of a misdemeanor, and on conviction shall be punished by a fine of not less than fifty dollars, and if the fine is not paid, shall be imprisoned for not less than thirty days in the penitentiary or county jail, or until said fine and cost of suit shall be paid.

SEC. 2. Any person who shall adulterate milk with the view of offering the same for sale or exchange, or shall keep cows for the production of milk for market, or for sale or exchange, in a crowded and unhealthy condition, or feed the same on food that produces impure, diseased, or unwholesome milk, shall be deemed guilty of a misdemeanor, and on conviction shall be punished by a fine of not less than fifty dollars, and if the fine is not paid, shall be imprisoned for not less than thirty days in the penitentiary or county jail, or until said fine and cost of suit shall be paid.

SEC. 3. Any person or persons who shall engage in or carry on the sale, exchange, or any traffic in milk, shall have the cans in which the milk is exposed for sale or exchange, and the carriage or vehicle from which the same is vended, conspicuously marked with his, her, or their names, also, indicating by said mark the locality whence said milk is obtained or produced, and for every neglect of such marking, the person or persons so neglecting shall be subject to the penalties expressed in the foregoing section of this act. But for every violation of this act, by so marking said cans, carriage, or vehicle as to convey the idea that said milk is procured from a different locality than it really is, the person or persons so offending shall be subject to a fine of one hundred dollars or imprisonment in the penitentiary or county jail, or both, in the discretion of the court.

SEC. 4. This act shall take effect immediately.

By this act the Legislature evidently intended to completely and entirely suppress the "swill-milk" business, but our city courts have virtually set aside the act, for the judge decided that the addition of water to milk was no adulteration. Upon the passage of this act, the New York Academy of Medicine appointed a committee con-

sisting of Professors Parker, Taylor, and Percy to urge the enforcement of the law; copies of the law were printed and posted about the city, and the Police Commissioners gave their earnest and valuable assistance, and placed a policeman at the disposal of this committee; the district attorney and other lawyers were consulted as to the best means of carrying out the law. It was their opinion that the milk must be traced directly from these distillery cows to the consumer and purchaser, and that those who adulterated milk must be watched so that they may be seen adding water to the milk. By providing the persons seeking the information with horses, I was enabled to get positive proof, and three committals were made for trial. The first case tried was for violation of the act for adulterating milk by adding water; the fact was proven to the court, but the judge decided it to be no adulteration.* Upon consultation regarding the other cases it was thought best not to try them at that time, but to endeavor to get an amendment to the act, because the lawyers felt that the point would be urged very strongly as to the unwholesomeness of this swill milk, and although they acknowledged that this could be easily proved as to swill milk in general, it would be impossible to prove it by this sample in particular. Thus the labors and expense incurred have been entirely nugatory of any good results, because the

“ * SUPREME COURT, OCT. 27.

“ Before Justices Ingraham, Barnard and Clarke.

“ JACOB FAUERBOCK AGAINST THE PEOPLE.

“ The charge against the defendant, now appellant, was that he adulterated the milk with water. It admits of some doubt whether mixing water with milk was intended by the term “to adulterate milk.” The evident intent of the statute was to prevent the traffic in impure and unwholesome milk. Whether the addition of water to milk renders it unwholesome is not so clearly settled as to enable a court so to find, without some evidence to establish the fact. If the Legislature had so intended they would have made the offence to consist of any mixture whatever being made with the milk.”

act does not define what is adulteration, or what kind of milk is unwholesome. It is to remedy this defect and to enable us to enforce an act, that our legislators evidently intended should be enforced, that I now appeal to you, asking your efficient moral force.

I have as yet said nothing of the character of the meat from these swill-fed cows. During the sitting of the committee of the Academy of Medicine, in furtherance of the request of the Board of Health, the city Inspector was invited and requested to be present at all their meetings ; he did attend once or twice, and he promised that the committee should have abundant opportunities to make post mortem examinations of animals that died at these stables, but though repeatedly reminded, such facilities were never accorded. I cannot think that this neglect was intentional, but was due to forgetfulness. But though the committee had no opportunity to make any post mortem examination, I, individually and incognito, followed several cows to the butchers and saw them killed ; the paunch, the intestines, the kidneys, the bladder, were enormously enlarged ; there was scarcely any inside fat, and what there was, was very soft and oily ; the lungs, in some instances, were very much diseased, the heart enlarged and flabby, the liver large, soft and unsaleable ; the smell from the slaughtered animal was very disagreeable, and from the paunch, when opened, offensive in the extreme. The flesh of these animals is softer than from a grass or meal fed animal, and the fat never becomes as hard, and upon a slight increase of temperature becomes quite soft ; the lean is seldom "marbled" with fat. As the flesh cools it loses its sour, swilly smell, it generally looks as though it had been

butchered by some novice in the business—it does not look neat. When this meat is cooked, it again gives out the swilly smell when warm, and the fat is very soft and oily. It loses much more than meat from healthy cattle in cooking. There is a strange peculiarity with both cattle and pigs fed upon this swill, the fat never again becomes hard, not even if they are removed and fed upon good food, but it always shows the taint of the bad food. A large number of living animals examined by me had bad looking teeth, owing to the retreating of the gums; the same was the case with those I examined that were slaughtered; in two of these several of the teeth were loose.

We have not as yet gleaned many facts regarding the ill effects of diseased meat upon human health or life. Something in this branch of sanitary science has been learned in England, France and Germany, but with the exception of the study of that disease called "milk sickness," which some years ago prevailed to some extent in the west, and is occasionally seen at present, the subject of the evil effects of diseased meat has been but little studied here. There are innumerable difficulties in the way of correctly studying this subject here, which can be overcome only by devoting long and special attention to it. In this way only could I learn the effects of diseased milk upon children using it, and the cases I have recorded are larger in number than those recorded by all my medical brethren in the country, because they have had no opportunity such as I was compelled to take, to correctly follow up and trace the connection between cause and effect, and explore the disease in each individual case, to its true source. Interested

persons may deny that diseased meat produces any ill effects, and thoughtless persons may overlook them, as even now they overlook the pernicious effects of foul air from crowded and unventilated apartments, and the miasmata arising from bad drainage and stagnant water. But with the student of sanitary science it is not necessary, nor is it possible, to trace up each individual case of disease to its source—certain broad principles determine how they have been induced.

Is it possible that the meat of the animals I have just described can be wholesome as human food? We have proved conclusively that the milk that is derived from them is poisonous in its effects: the milk is but a secretion from the blood, and all the tissues of the body are made up from this same blood, and when the cause of the impurity, as is the case here, is long continued, it must produce the same diseased condition. Disease of the lungs, which we see exists amongst the majority of these cattle, induces a disease of the whole system, and the flesh must become unhealthy because the lungs are unable to perform the regenerative process of aeration to the blood. The excessive activity of the respiration, owing to the foul, heated and moist air in the stables, alone would induce great functional disturbance, and while this cause lasted would induce a feverish condition of the whole system, and render the flesh unfit for food. The functions of the heart are performed in the same rapid and abnormal manner, until the heart itself becomes enlarged and flabby. The liver, the paunch, the intestines are the seat of disease, and cannot make a healthy blood to supply the system. The nervous system is irritated to its utmost point

of life endurance; and how numerous are the cases in every day practice where we know that irritation of the nervous system is the most prolific cause of disease? Even every day observation acknowledges that the flesh of an irritated and infuriated animal is not fit to eat, and that an active poison is developed by such nervous irritation, which produces serious results if an individual is either cut or scratched while butchering the animal. Deaths have been recorded from eating such flesh. The cows in these stables are not irritated to the same extent or in the same manner, but the irritation of their nervous system is perpetually continued, and alone would make the flesh unhealthy for food. These cows are to a great extent excluded from the light; experimental physiology has conclusively proved that such treatment always induces disease. The swill fed cows are all more or less diseased. *Is diseased food adapted to either the physical or moral life of the people?*

The diseased meat from these slop fed cows is sold to small butchers by the quarter, at Washington market. It is disposed of principally in the poor and thickly settled quarters of the city, but occasionally finds its way to the better butchers. There are but few cases of disease that make so strong an impression upon us as those which attack ourselves. I can give a little personal experience in this way on the subject in question. In the month of June last, a piece of beef was on my table that had a peculiar flavor. I ate of it sparingly and noticed the peculiar swilly odor and taste with which I was well acquainted, having acquired this knowledge in student life at Bellevue hospital, where the fact of supplying us with "swill beef" was

not pretended to be concealed. I ate for my lunch bread and this meat only. It produced a most profuse and persistent diarrhoea, with a feeling of general malaise. On the third day after eating it, I was taken suddenly sick while in the street, and my left shin pained me very severely. On my return home, I found an inflamed spot about three inches in diameter; and in the centre of this two pustular elevations, each of about the size and color of a split pea. The next day the whole inflamed surface had become a vesicle. Eventually the whole skin peeled off, and the two pustular spots became deep-seated ulcers, and six weeks elapsed before they were perfectly healed. The whole spot is yet of a dark color. I showed it to Dr. Mott and several other medical friends, and most of them agreed that I was correct in attributing it to some constitutional poison. I cannot assert positively that this meat produced my sickness, but I think that most persons with these facts before them would sustain me in my suspicions. Professor Gamgee, of Edinburgh, in answer to a question before the medical officers of health, "Is the produce of diseased animals unwholesome as human food?" says: "I can refer to violent attacks of dysentery, to malignant pustule, mysterious and fearfully sudden deaths, resulting from the consumption of impure food; but we know not to what extent, and in what way it aids in constantly raising human mortality; what per centage of deaths must be annually attributed to the constant and unchecked traffic in the carcasses of diseased animals, or the milk of foully-kept or diseased cows.

" My conviction is so strong, that of all food adulteration, none operate so constantly and fatally as the deteriorations

of animal produce. "Disease in man is induced by eating the flesh of an over-driven ox." "The anthrax poison of cattle induces malignant pustule in man, but with a very different degree of severity in different cases." He is sustained in this assertion by the ablest physiologists and pathologists of Europe. "The active traffic in diseased animals, the imperfect system of inspection of meat by non-professional men, the uncontrolled trade in milk from whatever source it may come, demand investigation, and the adoption of measures to protect the public interests in a pecuniary, as well as in a sanitary point of view."

I have found several instances of poisoning by the *Trichina spirales* from beef coming from animals fed at these distilleries.

It is supposed that this distillery swill milk business is carried on but to a small extent, but I have upon my book the names of more than 60 extensive milk dealers who supply this unwholesome product only. They are mostly from Long Island, there are some from New Jersey, and a few from New York county.

In view of the facts that I have presented, I would most earnestly appeal to the Legislature of our State to so amend or explain the law, some members so kindly labored to get enacted at the last session, as to define what is meant by adulteration, and to definitely express what kind of milk is to be deemed unwholesome. The whole act, passed by the Legislature at the last session, is humane and meant to be entirely protective; it needs no alteration but mere explanatory additions, entirely forbidding the sale of swill milk!

